

## United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,358	02/06/2006	Yasukazu Nakata	Q92997	9855
23373	7590 09/20/2006		EXAMINER	
SUGHRUE MION, PLLC			LEVI, DAMEON E	
2100 PENNSYLVANIA AVENUE, N.W. SUITE 800		.W.	ART UNIT	PAPER NUMBER
<del>-</del>	ON, DC 20037		2841	
			DATE MAILED: 09/20/200	6

Please find below and/or attached an Office communication concerning this application or proceeding.

			3				
	Application No.	Applicant(s)					
	10/567,358	NAKATA ET AL.					
Office Action Summary	Examiner	Art Unit					
	Dameon E. Levi	2841					
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the o	correspondence address					
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DATE - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  If NO period for reply is specified above, the maximum statutory period was Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION  16(a). In no event, however, may a reply be ting  17 iii apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).					
Status							
	)⊠ Responsive to communication(s) filed on <u>06 February 2006</u> .						
2a) This action is <b>FINAL</b> . 2b) This action is non-final.							
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
closed in accordance with the practice under £	х рапе Quayle, 1935 С.D. 11, 4	03 O.G. 213.					
Disposition of Claims							
4) ☐ Claim(s) 1-4 is/are pending in the application. 4a) Of the above claim(s) is/are withdray 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-4 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or							
Application Papers							
9) ☐ The specification is objected to by the Examine 10) ☐ The drawing(s) filed on 06 February 2006 is/are Applicant may not request that any objection to the Replacement drawing sheet(s) including the correction 11) ☐ The oath or declaration is objected to by the Examine 10.	e: a)⊠ accepted or b)⊡ objecte drawing(s) be held in abeyance. Se ion is required if the drawing(s) is ob	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d)					
Priority under 35 U.S.C. § 119							
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau * See the attached detailed Office action for a list	s have been received. s have been received in Applicat ity documents have been receive (PCT Rule 17.2(a)).	ion No ed in this National Stage					
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO/SB/08)	4)  Interview Summary Paper No(s)/Mail D 5)  Notice of Informal R	ate					

Paper No(s)/Mail Date \_

6) Other: \_

## **DETAILED ACTION**

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Ikefuji et al US Patent 6404644.

Regarding claim 1, Ikefuji et al discloses a flip chip mounting substrate which comprises: an electronic circuit composed of a circuit line(element 12, Figs 1-4, 32, Fig 5, 52, 57, Fig 6) and plural mounting pads(element 12a,12b, Figs 1-4) connected to both ends of the circuit line formed on one surface of a base sheet(element 10, Figs 1-4), wherein the plural mounting pads are faced each other and spaced a pad clearance gap apart, and one or more semiconductor mounting paste guide paths(element 16, Figs 1-4) are formed in the mounting pads.

Regarding claim 2, Ikefuji et al discloses wherein a width of the semiconductor mounting paste guide path is in the range from 50 to 600 um(element 16, Figs 1-4).

Regarding claim 3, Ikefuji et al discloses wherein a broad section(element 19b, Figs 1-4) for pressing out and spreading uniformly the semiconductor mounting paste(element 19, Figs 1-4) to connecting to an IC ship is formed in a part of the pad clearance gap.

Regarding claim 4, Ikefuji et al discloses wherein a thin film layer (element 19a, Figs 1-4) is formed in center section of the broad section.

Art Unit: 2841

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dameon E. Levi whose telephone number is (571) 272-2105. The examiner can normally be reached on Mon.-Fri. (9:00 - 5:00) IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DEL

Tuen Divh 9-13-06.

Dameon E Levi Examiner

Art Unit 2841